NPort® 5200 Series

2-port RS-232/422/485 serial device servers



- Small size for easy installation
- Versatile socket operation modes, including TCP Server, TCP Client, and UDP
- Easy-to-use Windows utility for configuring multiple device servers
- Supports 10/100M Ethernet
- Patented ADDC® (Automatic Data Direction Control) for 2-wire and 4-wire RS-485
- Built-in 15 KV ESD protection for all serial signals
- SNMP MIB-II for network management

The certification logos shown here apply to some or all of the products in this section. Please see the **Specifications** section or Moxa's website for details.

Standard TCP/IP Protocols and Choice of Operation Modes

NPort® 5200 device servers can operate in TCP Server, TCP Client, or UDP operation mode, ensuring compatibility with software based on a standard network API (Winsock, BSD Sockets).

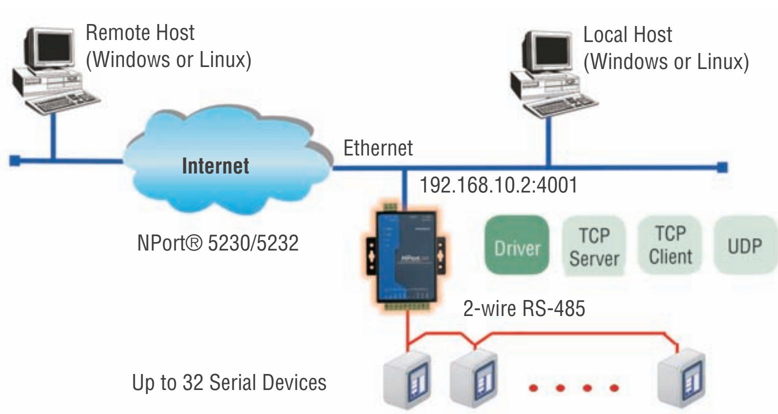
Real COM/TTY Drivers for Existing Software

With the Real COM/TTY drivers that are provided with each NPort®, software designed for communication with COM/TTY ports can be instantly and seamlessly integrated into a TCP/IP network. This is an excellent "no fuss" way to preserve your software investment and enjoy the benefits of networking your serial devices.

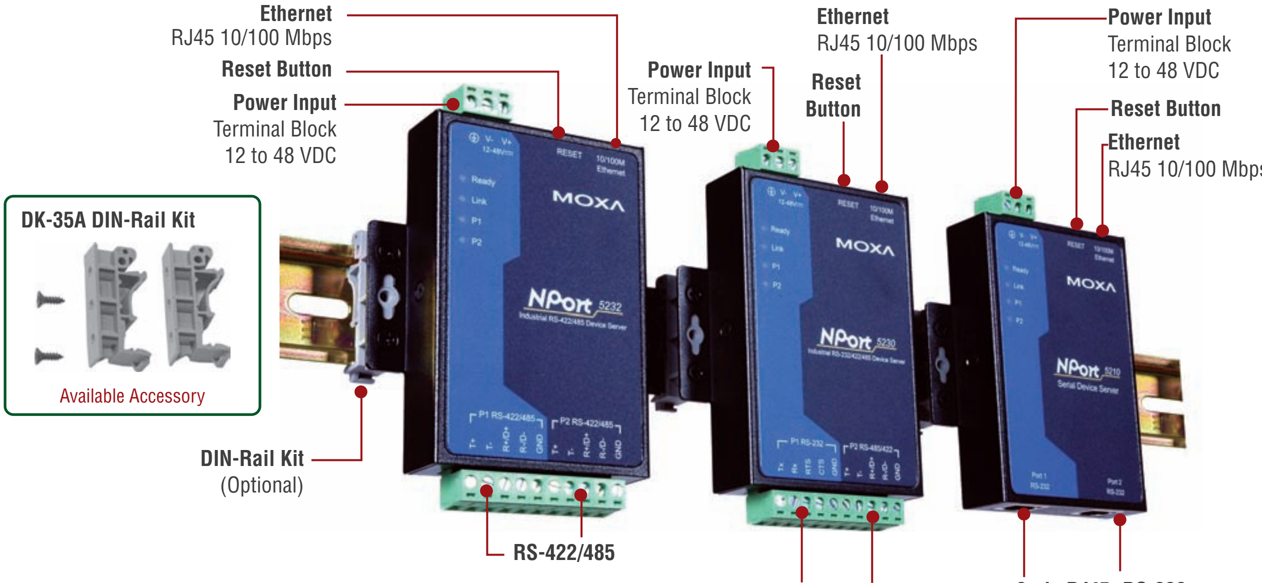
Control Remote Serial Devices with TCP/IP or Traditional COM/TTY Port

By specifying the NPort® 5200's IP address and port number, a network sockets API can obtain access to the attached serial device over the network, from any host computer that supports TCP/IP. For legacy Windows or Linux software that is COM or TTY-based, Moxa's COM/TTY drivers provide a seamless way of operating over the network.

COM Driver or Network Socket Operation



Appearance



Specifications

Ethernet Interface

Number of Ports: 1

Speed: 10/100 Mbps

Connector: 8-pin RJ45

Magnetic Isolation Protection: 1.5 KV built-in

Serial Interface

Number of Ports: 2

Serial Standards:
NPort® 5210: RS-232
NPort® 5230: 1 RS-232 port, 1 RS-422/485 port
NPort® 5232: RS-422/485

Connectors:
NPort® 5210: RJ45 (8 pins)
NPort® 5230/5232: Terminal Block (5 pins per port)

Serial Line Protection:
15 KV ESD protection
2 KV isolation protection (NPort® 5232I/5232I-T)

RS-485 Data Direction Control: ADDC® (automatic data direction control)

Serial Communication Parameters

Data Bits: 5, 6, 7, 8

Stop Bits: 1, 1.5, 2

Parity: None, Even, Odd, Space, Mark

Flow Control: RTS/CTS (RS-232 only), DTR/DSR (NPort® 5210 only), XON/XOFF

Baudrate: 110 bps to 230.4 Kbps

Serial Signals

RS-232:
NPort® 5210: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
NPort® 5230/5232: TxD, RxD, RTS, CTS, GND

RS-422: Tx+, Tx-, Rx+, Rx-, GND

RS-485-4w: Tx+, Tx-, Rx+, Rx-, GND

RS-485-2w: Data+, Data-, GND

Software

Network Protocols: ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP, HTTP, SMTP, SNTP

Configuration Options: Web Console, Serial Console (NPort® 5210/5230 only), Telnet Console, Windows Utility (NPort® 5210/5230 only)

Driver Support: Windows Real COM driver (for Windows 95, 98, ME, NT, 2000, XP, 2003, Vista, XP x64, 2003 x64, Vista x64), Linux Real TTY driver, Fixed TTY driver (for SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i)

Physical Characteristics

Housing: Aluminum (1 mm), providing IP30 protection

Weight:
NPort® 5210: 320 g
NPort® 5230/5232: 340 g
NPort® 5232I: 380 g

Dimensions:
NPort® 5210/5230/5232:
Without ears: 67 x 100.4 x 22 mm (2.64 x 3.95 x 0.87 in)
With ears: 90 x 100.4 x 22 mm (3.54 x 3.95 x 0.87 in)
NPort® 5232I:
Without ears: 67 x 100.4 x 35 mm (2.64 x 3.95 x 1.37 in)
With ears: 90 x 100.4 x 35 mm (3.54 x 3.95 x 1.37 in)

Environmental Limits

Operating Temperature:
NPort® 5210/5230/5232/5232I: 0 to 55°C (32 to 131°F)
NPort® 5210-T/5230-T/5232-T/5232I-T: -40 to 75°C (-40 to 167°F)

Operating Humidity: 5 to 95% RH

Storage Temperature: -20 to 85°C (-4 to 185°F)

Power Requirements

Input Voltage: 12 to 48 VDC

Power Consumption:
NPort® 5210: 305 mA @ 12 V max.
NPort® 5230: 347.1 mA @ 12 V max.
NPort® 5232: 259.6 mA @ 12 V max.
NPort® 5232I: 509.4 mA @ 12 V max.

Power Line Protection: 1 KV burst (EN61000-4-4: EFT/B), 0.5 KV surge (EN61000-4-5)

Regulatory Approvals

EMC: CE (EN55022 and EN55024 Class A), FCC Part 15 Subpart B Class A

Safety: UL (UL60950-1), TÜV (EN60950-1)

Medical: EN60601-1-2 Class B, EN55011

Marine: DNV

Reliability

Alert Tools: Built-in buzzer and RTC (real-time clock)

Automatic Reboot Trigger: Built-in WDT (watchdog timer)

MTBF (meantime between failures):
NPort® 5210: 134850 hrs
NPort® 5230: 106955 hrs
NPort® 5232: 102344 hrs
NPort® 5232I: 87083 hrs

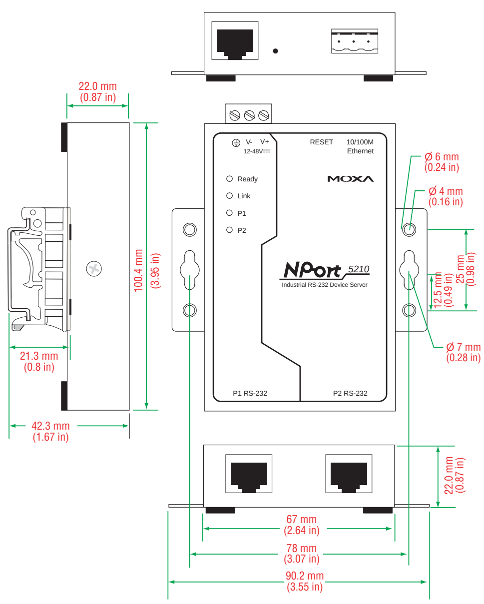
Warranty

Warranty Period: 5 years

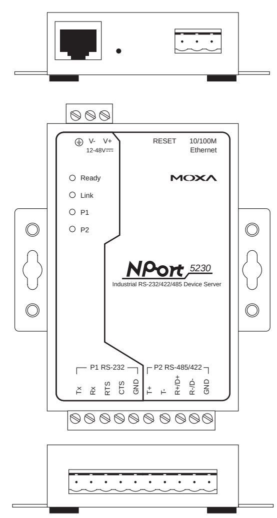
Details: See www.moxa.com/warranty

Dimensions

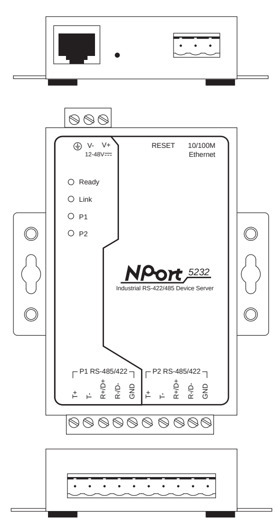
NPort® 5210



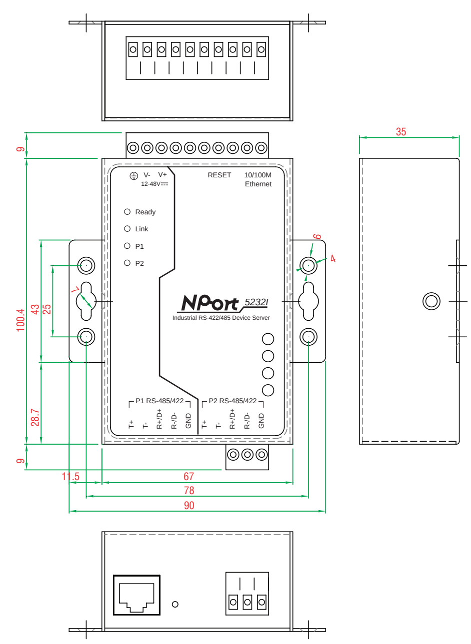
NPort® 5230



NPort® 5232

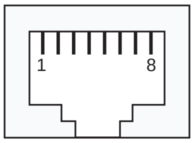


NPort® 5232I



Pin Assignment

8-pin RJ45 connector

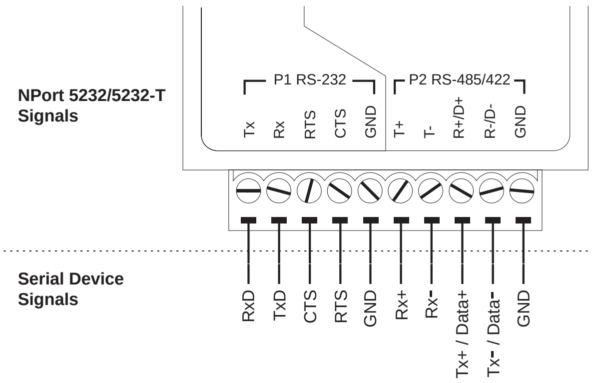


NPort® 5210/5210-T (RS-232)

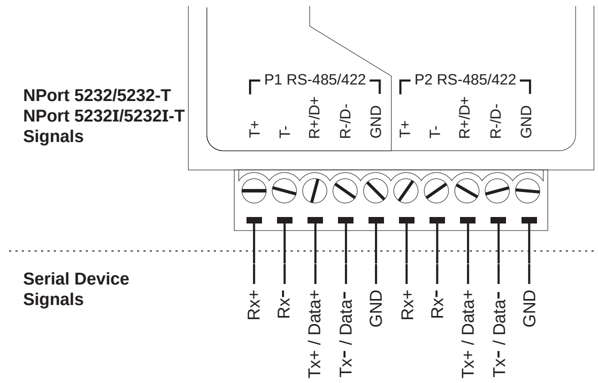
PIN	RS-232
1	DSR (in)
2	RTS (out)
3	GND
4	TxD (out)

PIN	RS-232
5	RxD (in)
6	DCD (in)
7	CTS (in)
8	DTR (out)

NPort® 5230/5230-T
(RS-232/422/485, terminal block connector)



NPort® 5232/5232I/5232-T/5232I-T
(RS-422/485, terminal block connector)



Ordering Information

Available Models

NPort® 5210: 2-port RS-232 device server
NPort® 5230: 2-port device server with 1 RS-232 port and 1 RS-422/485 port
NPort® 5232: 2-port RS-422/485 device server
NPort® 5232I: 2-port RS-422/485 device server with 2 KV optical isolation
NPort® 5210-T: 2-port RS-232 device server, wide temperature (-40 to 75°C)
NPort® 5230-T: 2-port device server with 1 RS-232 port and 1 RS-422/485 port, wide temperature (-40 to 75°C)
NPort® 5232-T: 2-port RS-422/485 device server, wide temperature (-40 to 75°C)
NPort® 5232I-T: 2-port RS-422/485 device server with 2 KV optical isolation, wide temperature (-40 to 75°C)

Package Checklist

- NPort® 5200 series device server
- Power Jack to 3-pin Terminal Block Adaptor
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card

Optional Accessories (can be purchased separately)

DK-35A: Mounting Kit for 35-mm DIN-Rail
DIN-Rail Power Supply: See page A-8 for details
Terminal Block: See page A-7 for details